

The background is a complex collage. At the top, there's a map of Europe. Below it, a large, stylized eye with a blue iris is prominent. To the left, a soldier in camouflage gear is visible. In the center, a tank is partially shown. To the right, there's a bright, fiery explosion. The overall theme is military and surveillance.

RUSI C4ISTAR Conference

Creating the Sensor Grid

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Evolving Strategic Environment



Non-State Threats



Weapons Proliferation



Weapons of Mass Destruction



Terrorism



Failed States



Transnational Actors

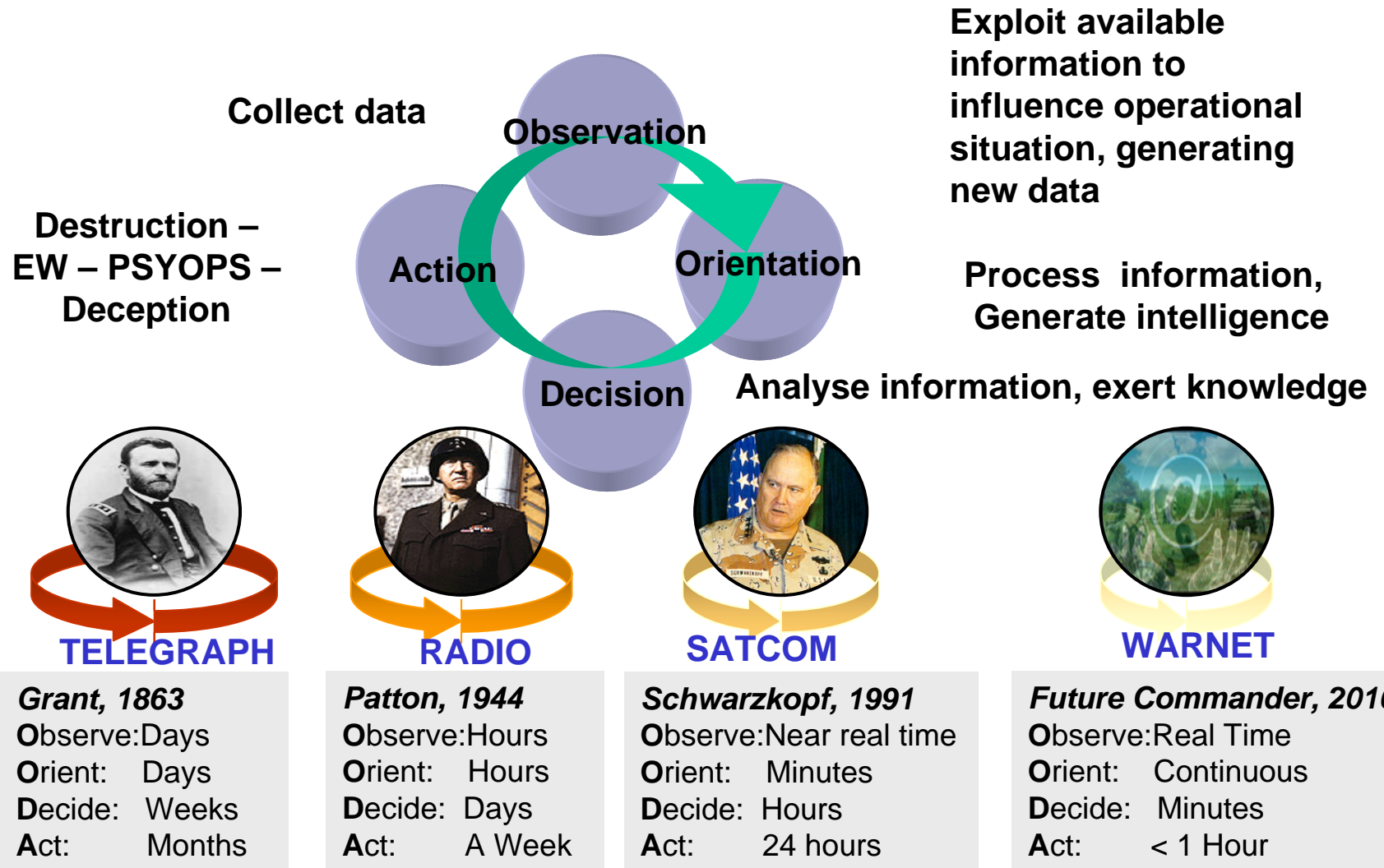


Peacekeeping

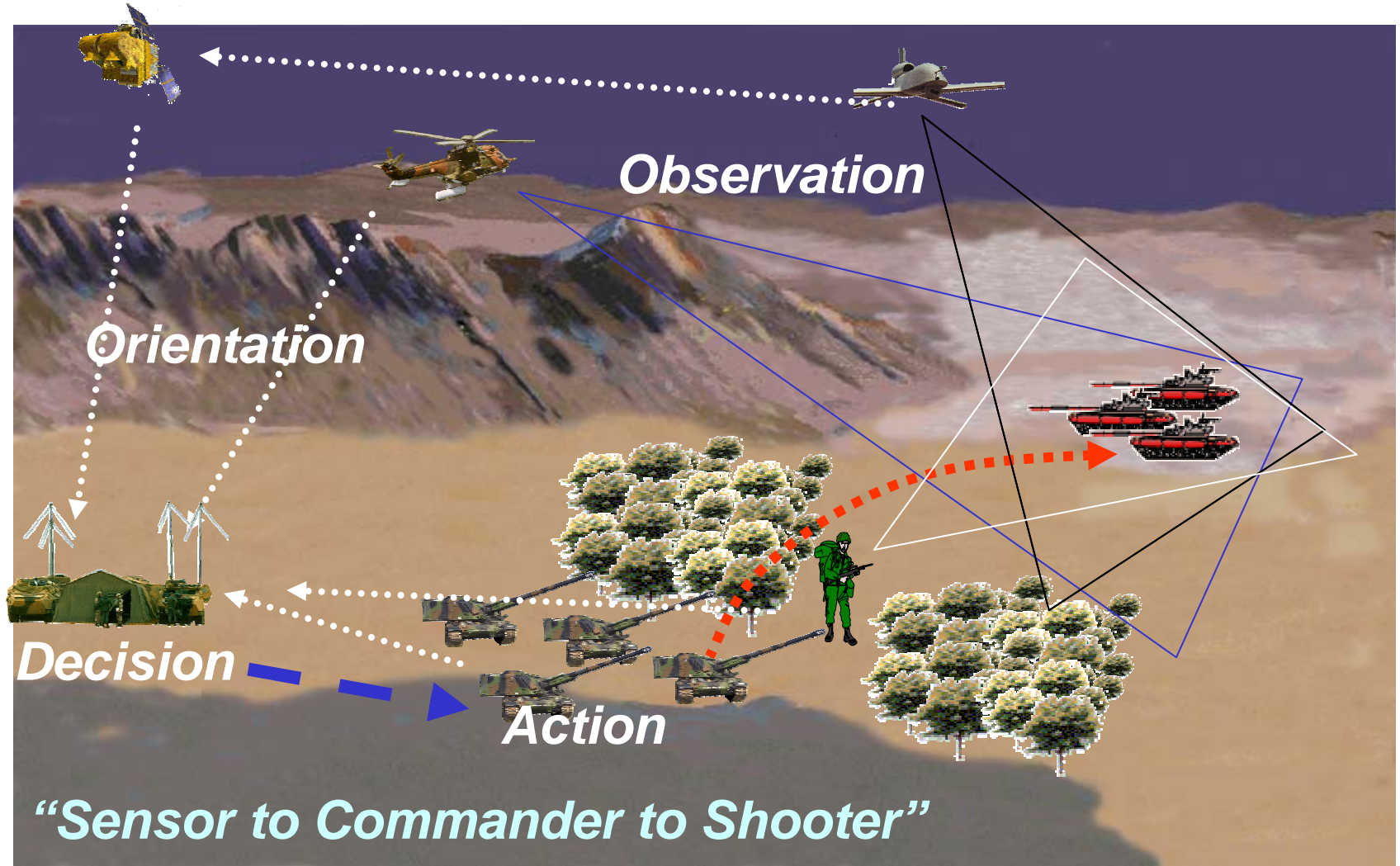


Information Security

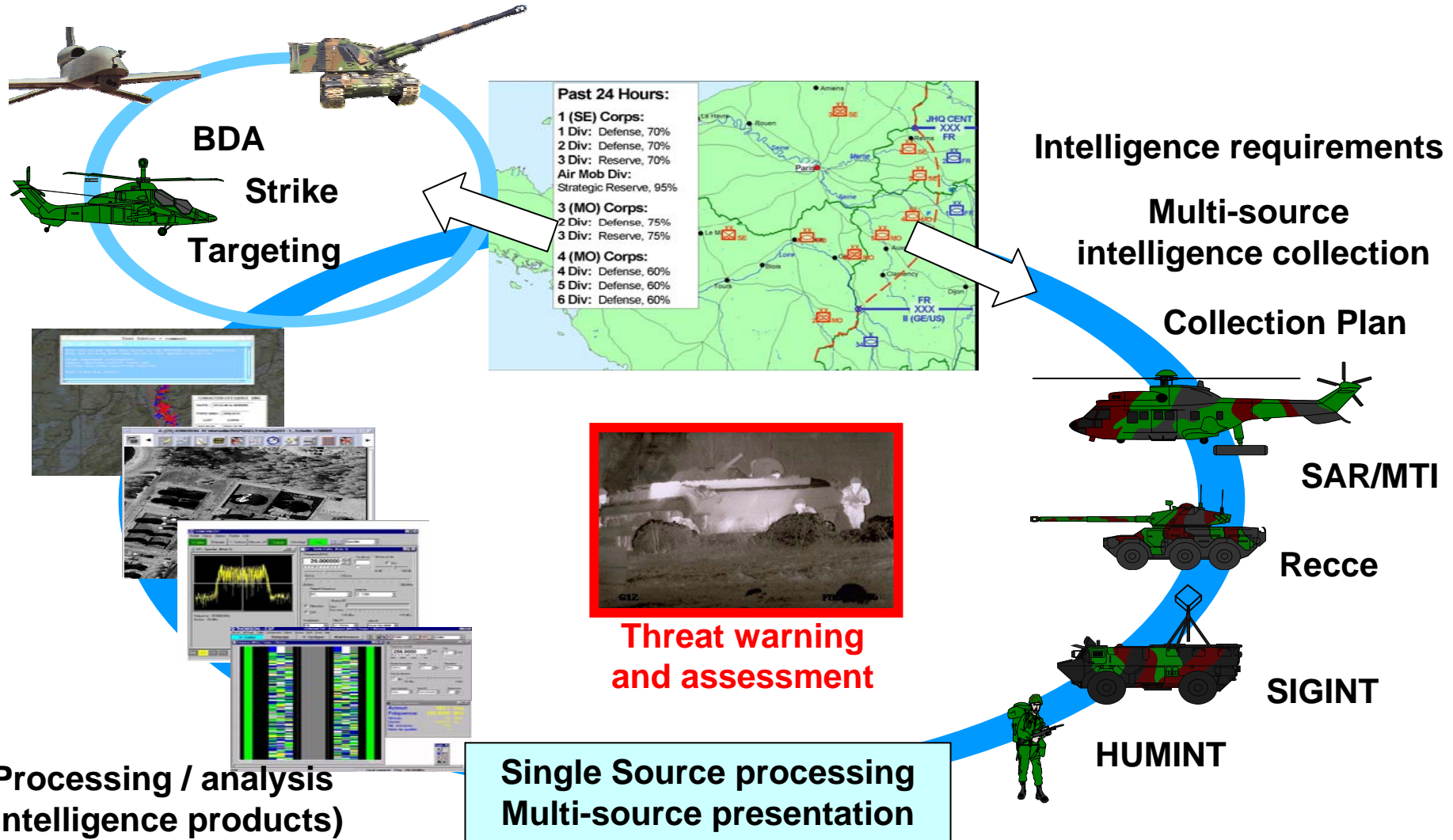
The Revolution in Information Affairs



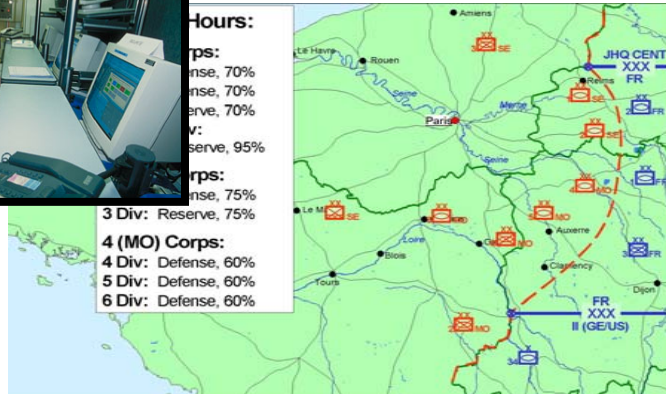
From Observation to Action



ISTAR, “fuelling” the OODA Loop



ISTAR and COP



**“The Quest for the HOLY GRAIL”,
the Common Operational Picture
(COP)**

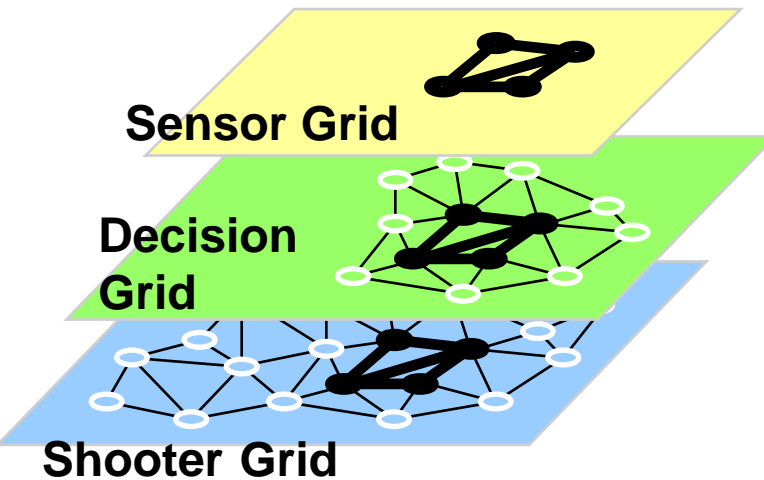
**Can we expect to reach the COP
under the current Command &
Control paradigm (C4ISTAR), built
on platform centralisation and
organisational vertical hierarchies ?**



The robust networking of:

- Smart sensors
 - Best-placed decision makers
 - Soft & Hard Kill assets
- enables Situational Awareness**

Network Enabled Forces



- > Stow-piped architecture replaced with a flexible Network Centric paradigm*
- > Networking is enabling co-ordination and co-operative operations*
- > All nodes provides and have access to information and resources via the network*
- > A sensor can be utilised as a communication node, a shooter is also a sensor*

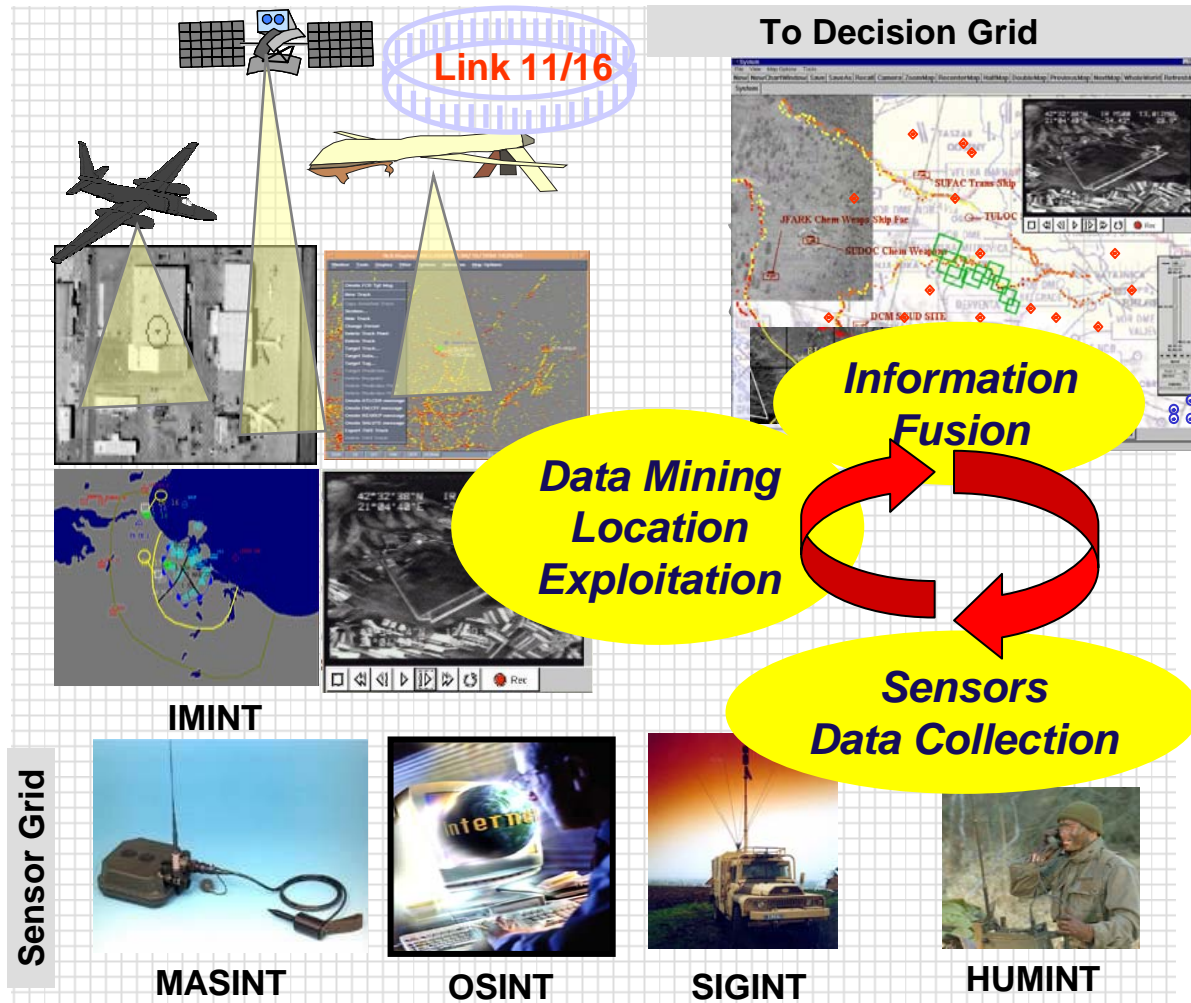
The Sensor Grid enables NCW

> Key aspects:

- Air-, Sea-, Ground-, Space- and Cyberspace- based sensors information sharing
- Intranet
- Distributed data bases
- National Security issues

> The network nodes fuse and “push” the information to the best user

> Resources can “pull” mission-critical information



Way forward

- ***How to achieve the first portion of Network Centric Systems, i.e. the Sensor Grid?***
 - **What are the conditions for implementing a NCW capability**
 - **How to implement these conditions**
 - **How to identify challenges**
- ***Step-by-step, user-oriented approach***
- ***Three-party partnership***
- ***Field Experimentation***

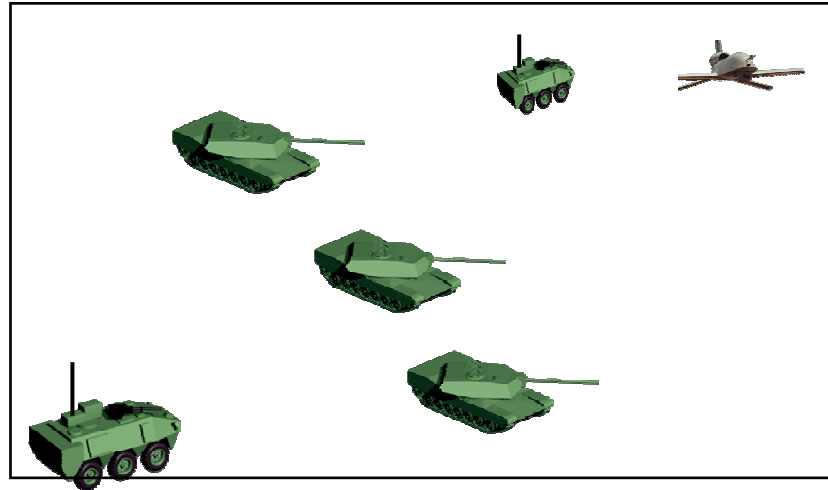
Scenarios for Experimentation

Urban Warfare Scenario



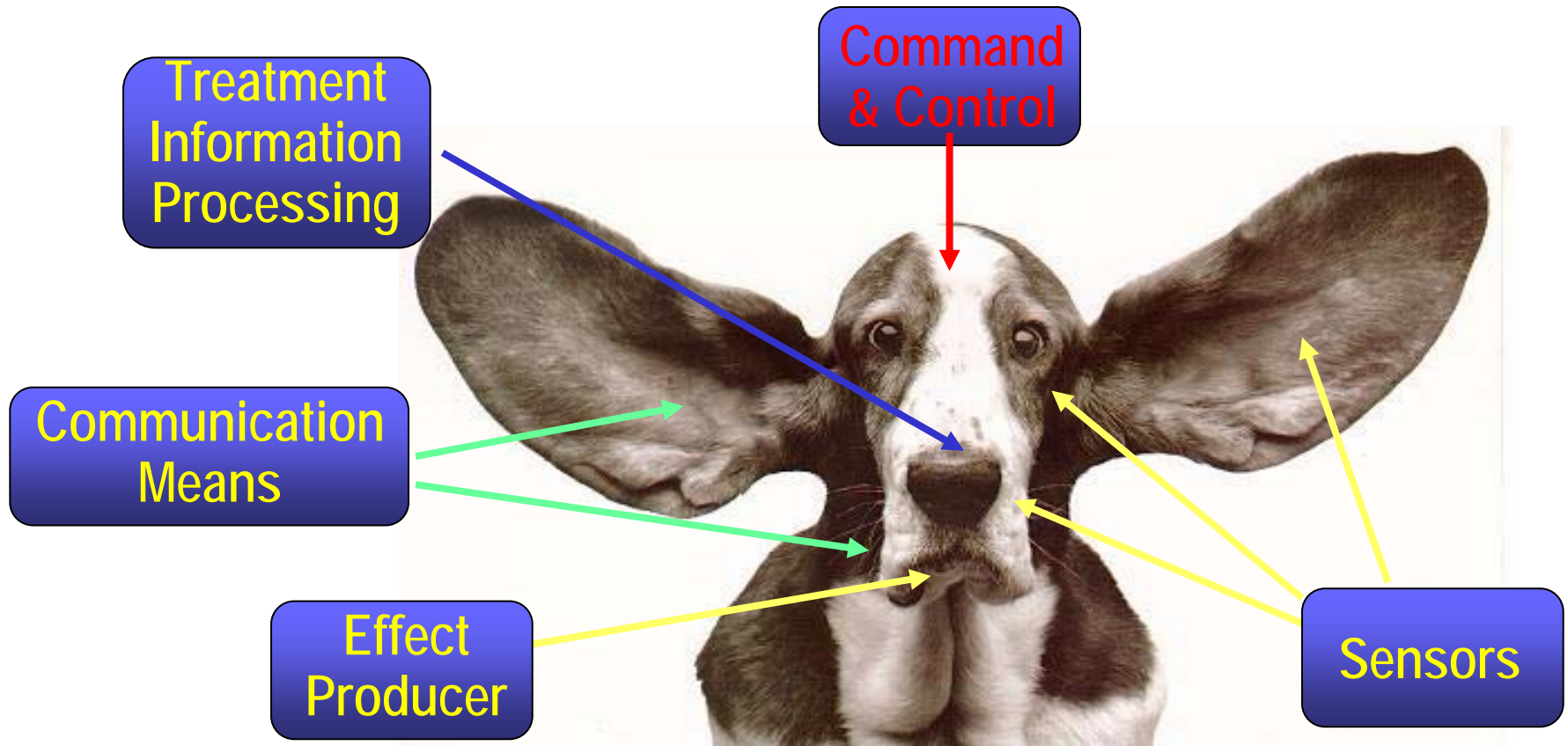
- > ***Future Solider***
- > ***Remote Ground Sensors***
- > ***Micro UAV's***

Meeting Engagement Scenario



- > ***Battlefield Management System***
- > ***Battlefield Identification System***
- > ***Remotely Operated Vehicle with sensor suit***
- > ***Small UAV, for over the hill capability***

C4ISTAR ?



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